

**Rabies
Animal Disease
&
Quarantine versus Euthanasia**

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**Domestic Animals
Outcome of Exposure**

- Depends on:
 - Vaccination status
 - Owner knowledge & recognition of exposure
 - Owner consults DVM for advice &/or booster rabies vaccination
 - Virus variant
 - Dose, route, and location of exposure
 - Host factors

**Domestic Animals
Signs & Symptoms**

- Incubation period
 - Can be as short as 15 days
 - Typically 30 to 45 days
 - Can be as long as 6 months
- Rapidly fatal once clinical signs develop
 - Domestic animals usually die within 3 to 5 days after onset of clinical signs
- Iowa: skunk or bat strain

Domestic Animals Signs & Symptoms

- Two clinical forms
 - Dumb / paralytic
 - Furious / aggressive
- With both forms, the animal may scratch or bite at the site of the exposure / bite

Domestic Animals Signs & Symptoms

- "Dumb" / paralytic form
 - Most common in dogs & livestock
 - Behavior changes
 - Cattle often "bellow" and head butt
 - Paralysis of jaw and throat muscles
 - Anorexia; difficulty swallowing; "lockjaw"; dropping of lower jaw & often not able to bite
 - Drooling / salivating

Domestic Animals Signs & Symptoms

- "Furious" / aggressive form
 - Most common in cats & horses
 - Behavior changes
 - AGGRESSIVE; OFTEN ATTACK & BITE
 - Restless, disoriented, excitable, anorexia
 - Vocal
 - Cats often meow and "yowl"

Quarantine vs. Euthanasia

- Dependent on exposure assessment
- Requires accurate & complete information
 - Type of exposure: Bite or saliva (non-bite)
 - Who: human versus non-human exposure
 - What: animal species involved in exposure
 - Where: bite above or below shoulders
 - When: exposed
 - Why: circumstances of exposure

Quarantine vs. Euthanasia

- Exposure Assessment continued:
 - Is the animal:
 - Currently exhibiting clinical signs
 - Confined / available for quarantine, or euthanasia and testing
 - Vaccination status
 - Current, not current, never vaccinated
 - Does the animal have
 - History of encounter with skunk or bat

Quarantine vs. Euthanasia

- Consult with IDPH – CADE
 - Susan L. Brockus, DVM, MPH 515-281-4933
 - CADE 24 / 7 Hotline 1-800-362-2736
- NASPHV Compendium of Animal Rabies Prevention and Control, 2005
 - <http://s94745432.onlinehome.us/Rabies2005.pdf>
- CDC Rabies Website
 - <http://www.cdc.gov/ncidod/dvrd/rabies/>

Quarantine vs. Euthanasia

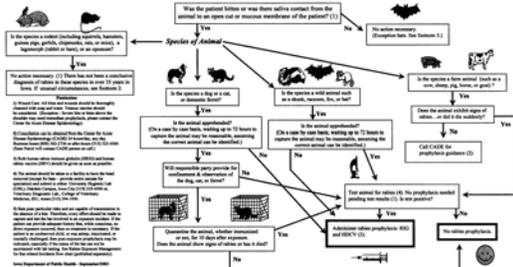
- IDPH Epi Manual
 - http://www.idph.state.ia.us/adper/surveillance_manual.asp
 - http://www.idph.state.ia.us/adper/cade_content/epi_manual/rabies.pdf
- IDPH Rabies Exposure Assessment Flow Charts
 - All Animals: http://www.idph.state.ia.us/adper/common/pdf/rabies_exposure_all_animals.pdf
 - Bats: http://www.idph.state.ia.us/adper/common/pdf/rabies_exposure_bats.pdf

Domestic Animals & Livestock



- Photos from CDC website: http://www.cdc.gov/healthypets/browse_by_animal.htm

Iowa Rabies Exposure Assessment Tree



Quarantine vs. Euthanasia

- Human Exposure: Dogs, cats, ferrets
- Bite below shoulders:
 - Regardless of vaccination status, if the dog, cat, or ferret is available and not exhibiting clinical signs of rabies:
 - Quarantine for 10 days
 - No PEP warranted if animal does not exhibit clinical signs of rabies by end of 10 day quarantine
 - If animal exhibits clinical signs of rabies during quarantine, proceed with euthanasia and testing

Quarantine vs. Euthanasia

- Human exposure: Dogs, cats, ferrets
- Bite below shoulders:
 - Dog, cat, or ferret is not available for quarantine:
 - Can allow 3 days from date of bite to locate the animal and place under 10 day quarantine
 - If the animal is not located by the third day, start rabies PEP

Quarantine vs. Euthanasia

- Human exposure: Dogs, cats, ferrets
- Bite below shoulders:
 - Rabies PEP has been started and dog, cat, or ferret is located and quarantined after day three:
 - Proceed with 10 day quarantine
 - Consider discontinuing rabies PEP if animal is not exhibiting clinical signs of rabies by end of 10 day quarantine
 - If dog, cat, or ferret is located after the third day and exhibiting clinical signs of rabies:
 - Euthanize and test
 - Continue rabies PEP if test result positive, indeterminate, or unsuitable

Quarantine vs. Euthanasia

- Human Exposure: Dogs, cats, ferrets
- Bite above shoulders and dog, cat, ferret available:
 - If animal is not vaccinated, history of encounter with skunk or bat 30 to 45 days prior and / or exhibiting clinical signs of rabies
 - Euthanize and test
 - PEP if test result is positive, indeterminate, or unsuitable

Quarantine vs. Euthanasia

- Human Exposure: Dogs, cats, ferrets
- Bite above shoulders and dog, cat, or ferret is available:
 - If animal is vaccinated, no history of encounter with skunk or bat 30 to 45 days prior, and not exhibiting clinical signs of rabies
 - Consider circumstances and severity of bite to determine best course of action:
 - Euthanize and test OR
 - 10 day quarantine

Quarantine vs. Euthanasia

- Human exposure: Horses and Livestock
 - Dependent on exposure / risk assessment
 - Evaluated on case by case basis
 - Is the animal:
 - Exhibiting clinical signs
 - Confined / available for quarantine, or euthanasia and testing
 - Vaccinated for rabies
 - Current, not current, not vaccinated
 - Does the animal have
 - History of encounter with skunk or bat

Quarantine vs. Euthanasia

- Human Exposure: skunk, raccoon, fox
 - If animal is available, euthanize and test:
 - Proceed with rabies PEP if test result is positive, indeterminate, or unsuitable
 - If animal is not available for euthanasia and testing:
 - Proceed with rabies PEP

Quarantine vs. Euthanasia

- Human Exposure: other wildlife such as rabbits, rodents, opossums, and squirrels
 - Iowa: none of these animal species positive for rabies for over 35 years
 - Generally, rabies testing and PEP not recommended or warranted

Bats



- The big brown bat is found throughout most of the United States and Canada. It feeds principally on beetles.
- Photo courtesy of:
<http://www.cdc.gov/ncidod/dvrd/rabies/bats & rabies/bats&.htm>

Quarantine vs. Euthanasia

- Non-human exposure: dogs, cats, horses, and livestock
 - NOT vaccinated or NOT CURRENT, and possibly bitten by skunk, bat, or other wildlife:
 - If skunk / bat is available, euthanize & test
 - If skunk / bat is positive for rabies, or if skunk / bat is not available recommendations are:
 - Immediately euthanize exposed animal OR
 - Consider immediate rabies vaccination of exposed animal and strict quarantine for 6 months
